PIRT Panel Activities

The PIRT Annual Report summarizes the activities of the PIRT Review Panel and member agencies for 2005.

Background

The PIRT Review Panel met nine times in 2005. The Panel monitored each agency's response time to incidents (see Combined Agency Data, page 8), monitored actions stemming from recommendations made in previous years, analyzed incident data to identify trends and patterns of problems related to pesticides, and responded to requests for special activities from the panel members.

The Panel made the following recommendations for Panel action and member agency action for 2005.

Recommendations to the PIRT Review Panel and Member Agencies for 2005

Recommendation 1

PIRT Review Panel and member agencies will initiate action on findings from the DOH investigations into underreporting of pesticide-related illnesses.

Lead: Dorothy Tibbetts

Department of Health

The investigation into underreporting of pesticide-related illnesses recommended continuing efforts to improve reporting of pesticide-related illness by health care providers. See the full report, *Improving Data Quality in Pesticide Illness Surveillance,* at http://www.doh.wa.gov/ehp/oehas/eha_publications.htm. Reporting is likely to improve if health care providers are aware of the purpose and outcomes of their reporting. To this end, DOH re-instituted the practice of sending Pesticide Incident Summary Reports to health care providers who referred cases to DOH. Summary reports provide information obtained during the DOH investigation of the case. Summary reports for 2000-2003 cases were mailed to health care providers in April 2005 and reports for 2004 cases were mailed in October 2005. Summary reports were also mailed to local health jurisdiction health officers and environmental health directors.

In addition to the case summaries, each packet contained information on the pesticide-illness reporting requirement and a flyer on reporting, suitable for posting as a reminder to busy medical personnel. The flyer stressed that suspected pesticide-related illness or injury should be reported. The packets

contained information about the Pesticide Program and the classification system used by DOH to determine the likelihood that the symptoms reported were caused by a pesticide exposure. They also contained a link to the DOH Pesticide Program Web site with new Web pages specifically for health care providers at http://www.doh.wa.gov/ehp/ts/Pest/pest-hcp-info.htm.

Copies of the EPA publication *Recognition and Management of Pesticide Illness* were offered upon request. The 2004 Pesticide Incident Summary Report packets also included feedback cards to assist DOH in evaluating the usefulness of the reports and to measure knowledge about the reporting requirement among health care providers and local health officials. For the 2004 cases, summary reports were mailed to 259 health care providers, 34 environmental health directors, and 24 health officers. Ninety-three (36%) of the evaluation cards were returned. Most (62%) of the 93 responses were from health care providers, 12% were from local health officials, and for 26% of the responses it was unknown whether they were from providers or local health officials.

Table 6 summarizes the results of the evaluation responses.

Table 6. Responses to Evaluation Forms Sent to Health Care Providers, Health Officers and Environmental Health Directors, 2005

	Yes	No
Was this mailing useful to you?	85 (93%)	6 (7%)
Did you know that suspected pesticide illnesses or injuries are reportable?	48 (53%)	43 (47%)
Would you like a copy of the clinical manual *Recognition and Management of Pesticide Poisonings?*	64 (70%)	27 (30%)
Would you like to receive future PISRs by email?	36 (40%)	54 (60%)

Another recommendation from the report was to develop alternative means of reporting potential pesticide illness cases to reduce the time and effort required. During 2005, significant progress was made in instituting a system for the electronic transfer of reports of possible pesticide illness from WPC to DOH and from L&I to DOH.

Washington Poison Center and Department of Health

In 2004, WPC collaborated with DOH and the University of Washington Clinical Informatics Research Group to develop a system for automated selection of WPC call records that meet DOH reporting criteria. Using the University of Washington extraction routine and a secure file transfer mechanism, files with all pertinent reports are now automatically sent from WPC's Toxicall data system to DOH's Pesticide Program every 24 hours. DOH Pesticide Program staff members then use a record review system, the Pesticide Illness Electronic Reporting System, to upload and view the reports from WPC. Daily transfer of reports began in December, 2004. The system underwent testing through March,

2005. During testing, reports continued to be faxed concurrently with electronic reports. The sensitivity and specificity of the automated case selection criteria were evaluated. Inconsistencies were detected and resolved. With testing of the transfer protocol completed, WPC discontinued faxing reports in April, 2005.

Labor and Industries and Department of Health

L&I and DOH also collaborated on a system for the electronic reporting of pesticide illness. L&I transfers weekly claims data to the DOH secure server. DOH downloads the cases for viewing and case ascertainment. The process was completed in February and paper reports were discontinued in March. The Pesticide Incident Electronic Reporting System will be upgraded to allow for review and storage of these reports in the system database.

Other Electronic Reporting Projects

DOH and Washington Environmental Public Health Tracking Network are currently exploring the feasibility and usefulness of obtaining electronic reports of pesticide illness cases from Inland Northwest Health Services Emergency Departments. A retrospective review of data from Inland Northwest Services databases for records with pesticide-related ICD-9 CM codes has been planned. The review will provide information about: a) whether this method of obtaining reports will increase the completeness and timeliness of pesticide illness reporting, and b) what would be required institutionally and technically to automatically provide these data to DOH.

Recommendation 2

DOH will revise and implement its data collection tool for identifying cause. DOH will report to PIRT on the progress of this project.

Lead: Dorothy Tibbetts

During 2005, DOH evaluated the feasibility of revising questions on the data collection instrument to better solicit information that could be used to prevent future incidents. The DOH data collection instrument contained two sets of prevention/intervention questions. One set included questions relating to the WPS. DOH reviewed the WPS questions, and determined that, given the limitation of the interview process, it is difficult to elicit quality information in this context. The second set of questions was developed for the National Institute for Occupational Safety and Health (NIOSH) and included questions on how the exposure could have been prevented. DOH revised these questions to obtain better information.

In July of 2005, DOH received funds from NIOSH to conduct a 5-year study entitled *Identifying Preventable Causes of Pesticide-related Illness Among*

Agricultural Workers. This project will enable DOH to more effectively identify preventable causes of illness and injury.

The project will identify and track existing pesticide risks to workers in the agricultural sector by expanding DOH case investigations and analysis of specific, common exposure scenarios. These include drift, exposures due to inadequate personal protective equipment practices, and the adequacy of WPS training. DOH will use the information derived from this effort to critically evaluate the adequacy of existing programs and policies, and to modify and expand current outreach efforts to address gaps in our prevention activities.

The specific objectives of this effort include the following:

- Critically assess the capability of the current data collection process for capturing the information needed to address specific areas of concern (for example, drift exposures; exposures due to inadequate personal protective equipment practices)
- Identify and develop necessary changes to the data collection process and data systems
- Expand analysis of collected data on specific areas of concern
- Develop, implement, and evaluate new prevention activities or modifications to current prevention activities based on the information generated with this effort

Data collection and data analysis strategies will identify root causes of occupational accidents resulting in pesticide illness by asking why events occurred or conditions existed. Intervention strategies will include policy recommendations to state and federal agencies and direct outreach to agricultural workers. Prevention messages will be incorporated into existing DOH outreach and education activities.

Recommendation 3

PIRT will obtain and review data from WSDA and other sources to evaluate Washington Schools' compliance with tracking and pesticide usage requirements, including requirements pertaining to 1) central collection of annual pesticide use reports, and 2) dissemination of information about tracking requirements and tracking tools to school districts.

Lead: Steve Gilbert

Action recommendation 3 was carried forward to 2006.

Recommendation 4

PIRT will review the Report on the National Assessment of EPA's Worker Protection Program and findings from Matt Keifer and Rich Fenske's University of Washington Pesticide and Public Health class regarding the adequacy of this rule to determine relevance for WPS implementation in Washington State. Additionally, the Panel will discuss future action that it might undertake.

Lead: Gabrielle Toutonghi

At the October, 2005, PIRT meeting, Allan Welch of EPA Region 10, presented information from EPA's *National Assessment of the Worker Safety Program*. The presentation focused on potential regulatory changes to the WPS (40 CFR Part 170). Potential changes include:

- Strengthening the worker training provisions including content, grace period, retraining interval, trainer requirements, and verification system.
- Establishing a hazard communication program for workers including training and field notification and possible changes to the central posting requirements.
- Reconsidering the retaliation provisions of the WPS.
- Expanding the scope of the applicator rules to include all individuals that mix, load or apply any pesticide as part of their occupation, including licensing handlers as currently defined in the WPS.

In November, the EPA will publish a Federal Register Notice of Intent to proceed with proposed changes to the WPS and Applicator Training regulation. A rule proposal is expected to be published in the Federal Register in February 2007.

University of Washington students in Matt Keifer and Richard Fenske's Pesticides and Public Health graduate class focused on WPS. They presented their recommendations for improvements to the WPS at the October 2005 PIRT meeting:

- Public Health Strategies for Minimizing Pesticide Exposure: Collateral Populations. Yolanda Sanchez addressed the four issues of pesticide drift, pesticide use reporting, decontamination, and exposure of children to pesticides.
- Evaluating and Revising the Training Portions of the WPS: Elizabeth Hom and Mac Rainey evaluated the current standard for training and recommended changes that address barriers to workers hearing the pesticide safety message, ensuring that training is documented, establishing incentives for growers to provide training, and enforcing compliance.

At the March 2005 PIRT meeting, Cliff Weed of WSDA described WSDA enforcement of the WPS through inspections at agricultural sites. In Tier-I inspections, the business place is inspected and the employer is interviewed for compliance with the WPS. In Tier-II inspections, workers are also interviewed. Historically, inspections have revealed that employers are doing well at providing the following:

- Information on re-entry after pesticide applications
- Appropriate personal protective equipment
- Emergency assistance

The following violations are most commonly identified during inspection:

- Failure to post information on pesticide applications at a Central Notification Board
- Failure to conduct Pesticide Safety Training, particularly for workers
- Insufficient Decontamination Supplies particularly for handlers at mix/load sites

In most cases violations are corrected without penalty.

Also, at the March 2005, PIRT meeting, Flor Servin of WSDA, discussed programs to train employers and farmworkers in pesticide safety. These include: Hands-on Training for pesticide handlers, Train-the-Trainer Program, Pre-license Training, and recertification courses. The programs cover appropriate personal protective equipment, mixing and loading, decontamination of personal protective and application equipment, and cholinesterase information. From 2002 through 2004, 336 pesticide handlers received training at 14 workshops. During 2003 and 2004, 952 individuals were trained at 35 pre-license classes. Representatives from industry, Jaime Reyes and Jaime Ramon, described what they learned in the Train-the-Trainer Program and how they apply the information to their work in WPS training.

Recommendation 5

PIRT will collect and review incident data related to the tree fruit industry to identify trends and recommend prevention strategies. Findings will be summarized in the 2006 PIRT Annual Report.

Lead: Dorothy Tibbetts

DOH will compile, review and summarize incident data related to the tree fruit industry. The summary will be included with the *2006 PIRT Report*.

Recommendation 6

PIRT will continue to compile data related to drift and report on member agencies' drift reduction efforts. PIRT will explore the feasibility of organizing a Washington Symposium on Drift.

Lead: Ann Wick

WSDA and DOH are working with Carol Ramsey, the Pesticide Education Coordinator for Washington State University, to develop a drift prevention symposium and field day. The purpose of these events is to encourage growers, primarily in the tree fruit industry, to learn about and adopt drift reduction technology. Ms. Ramsey is planning a hands-on demonstration day for the winter or early spring of 2006 and a symposium later to build on experiences from the field day. Ms. Ramsey is coordinating a planning committee with researchers, regulators, public health, and the tree fruit industry to develop the field day and symposium agenda.

Recommendation 7

The Panel will review and report on member agencies independent strategies to reduce pesticide incidents based on the combined PIRT data.

Lead: Dorothy Tibbetts

Each PIRT agency conducted pesticide incident prevention activities. Details of these activities are listed in each agency's Prevention Activities section in the following Agency Summary Reports.

Recommendation 8

PIRT will review the activities of the Medical Monitoring program for agricultural workers who handle cholinesterase inhibiting insecticides.

Lead: Dorothy Tibbetts

The activities of the Cholinesterase Monitoring Program for 2005 are described in detail in the L&I Section of this report.

Recommendation 9

PIRT will continue to monitor for any increase in pesticide incidents related to control of mosquitoes.

Lead: Dorothy Tibbetts

West Nile virus was detected in Washington in 2005. One horse, 1 bird and 2 mosquito pools, all from Yakima County, tested positive for West Nile virus in September. DOH tracks illnesses associated with control of community disease vectors and incidents involving repellents. This allows DOH to identify pesticide illness cases specifically associated with West Nile virus control efforts. Table 8 summarizes DOH cases associated with mosquito control, 2002 through 2004.

Table 8. DOH Cases* Associated with Mosquito Control, 2002 - 2004

	2002	2003	2004
Adult mosquito control	3	4	2
Larval mosquito control	0	0	0
Mosquito repellent	1	6	4

* *Limited to cases of illnesses classified by DOH as definitely, probably or possibly due to pesticide exposure. See Appendix B for more information on the DOH classifications.*

Recommendation 10

PIRT member agencies will report on possible instances of unclear labeling of pesticide product labels. WSDA will clarify or forward unclear federal labels to EPA for response.

Lead: Ann Wick

Labels for the pesticide products, Lorsban and Guthion, were distributed to PIRT members. Because of time constraints, there was no discussion but members were asked to look at the directions regarding drift prevention and to be aware of mandatory and voluntary directions to applicators. This discussion will be continued as PIRT develops an agenda for the proposed drift conference.

Other Panel Activities for 2005

RCW 70.104.080-100 Pesticide Panel

The Panel is reviewing the Revised Code of Washington (RCW) governing PIRT activities (RCW 70.104.080-100 Pesticide Panel). A draft proposal for revisions to the RCW was distributed. Discussion will continue in 2006.

Letter of Support for Modification of General Pesticide Rules, WAC 16-228

The Panel wrote a letter to WSDA in support of the proposed modification to the General Pesticide Rules, WAC 16-228. The proposed changes require notification of the application of highly toxic or corrosive pesticides via aerial, air blast, fumigation (outside) or overhead chemigation applications when the application site and the property boundaries touch and the application is within one-half mile of schools, hospitals, nursing homes, or adult or child day care centers.

The Panel noted that drift is a potentially serious route of exposure to pesticides. Pre-notification of schools, daycares, and hospitals will increase their awareness of highly toxic pesticides used nearby, facilitate feedback to the growers about the timing of planned applications, and will expedite protective actions if drift occurs. The Panel also noted that others could benefit from notifications including: adjacent homes, assisted living facilities, senior centers, preschools, private schools, community pools, parks, dialysis centers, and medical clinics. A copy of the letter is located in Appendix F.

Sales Data on Pesticide Use

In August, 2005, Philip Dickey, PhD, from the Washington Toxics Coalition, presented *Insecticide Concentrations in Thornton Creek and Comparison to Retail Sales* based on the paper co-authored with Dean Wilson, *Comparison Between Consumer Sales of Diazinon and Carbaryl and Water Quality in an Urban Stream.* The report included data on retail sales of products containing diazinon and carbaryl at Lowe's and Home Depot Stores in King County from 1997-2002. Sales decreased after the EPA announced phase out of diazinon in December 2000. He indicated that diazinon concentrations decreased and carbaryl concentrations increased in Thornton Creek between January 1996 and January 2003. Follow-up discussion included consumer education on the use of pesticides within the watershed and using surveys to determine whether residents were dumping pesticide products in drains.